

Waste & Opportunity

U.S. Beverage Container
Recycling Scorecard and Report, 2008

Amy Galland, Research Director,
As You Sow



Contents

Introduction.....	1
Executive Summary.....	2
Chapter 1: Source Reduction	4
Chapter 2: Recycled Content	6
Chapter 3: Beverage Container Recovery & Recycling	8
Chapter 4: Transparency	12
Chapter 5: Recommendations.....	13
Appendix A: Grading Methodology	15
Appendix B: Evaluation of Packaging Weights	16
Appendix C: The Great Pacific Garbage Patch	17
Appendix D: Changes in the Beverage Industry.....	18
Endnotes.....	19



As You Sow

Through capital markets, shareholder leverage and innovative legal strategies, As You Sow is transforming corporate behavior and creating a more socially and environmentally just society.

As You Sow is a non-profit social change organization dedicated to promoting corporate accountability, social justice, and environmental protection. The Corporate Social Responsibility Program is one of the nation's leading proponents of shareholder advocacy. As You Sow represents shareholders in dialogues with corporations to promote more responsible policies.

As You Sow is based in San Francisco, California. <http://asyousow.org/>

Acknowledgements

The Beverage Container Recycling Scorecard was conceptualized by Kenneth Scott of Walden Asset Management and Conrad MacKerron of As You Sow. Significant content and editing contributions were provided by both Kenneth Scott and Conrad MacKerron.

Thanks are due to Larry Fahn of As You Sow and Nishita Bakshi of Give to Asia for reviewing the report and to John Lind for providing weighing equipment.

This report was made possible by the generous financial support of the Educational Foundation of America, Lisa and Douglas Goldman Fund, Merck Family Fund, and Overbrook Foundation.



Introduction

In 2006, As You Sow published its first *U.S. Beverage Container Recycling Scorecard and Report* to accolades from those in the waste, beverage, and recycling industries as well as many in the environmental community. Recycling beverage containers reduces greenhouse gas emissions, conserves natural resources, saves energy, and reduces waste in landfills. Working collaboratively to foster such outcomes, As You Sow has been in dialogue with several major beverage corporations since publication of the first report.

Sierra Club Executive Director Carl Pope said the initial report should be “a wake up call” to the beverage industry. For Nestlé Waters North America, it was. Alex McIntosh, Nestlé Waters’ director of corporate citizenship, credited As You Sow’s 2006 Scorecard and subsequent dialogue as “getting our attention and encouraging us to look at the recycling challenge more broadly...” Soon after, Nestlé Waters became the first major beverage producer to support legislation that increases container recovery rates and, in October 2008, the first to support an industry-wide recovery goal for PET plastic.

This year’s report evaluates new and ongoing efforts by beverage producers to 1) reduce materials use, 2) increase recycled content in containers, 3) raise recovery and recycling rates, 4) support public policy initiatives to increase container recycling rates, and 5) disclose such activities to stakeholders. This report recommends corporate actions on recycling that can strengthen U.S. energy security and reduce carbon footprints and resource depletion.

The 2008 U.S. Beverage Container Recycling Scorecard and Report is based primarily on responses to As You Sow’s Beverage Container Recycling Survey, which was sent to 23 beverage companies and on publicly available information from websites and corporate social responsibility reports. Seven companies responded to the survey. The respondents to our survey control 74% of the U.S. carbonated soft drink market, over 60% of the U.S. bottled water market and almost 50% of the U.S. beer industry.¹

Executive Summary

Despite some significant progress in individual areas, no beverage company emerged as the clear environmental packaging leader in all categories. Too many beverage companies continue to score poorly in all environmental aspects of our beverage container environmental scorecard. Seven companies received “0” in every category and are thus only listed in Appendix A.

U.S. Beverage Container Recycling Scorecard, 2008

Scorecard	Total GPA	Overall Grade	Source Reduction	Recycled Content	Recovery & Recycling	Transparency
Coca-Cola*	2.02	C	C	C+	C-	D+
Anheuser Busch*	1.71	C-	C+	D+	C-	D
Pepsi Co*	1.59	C-	C	C	D-	F
Nestle Waters, NA*	1.58	C-	C	F	C+	D-
Red Bull*	1.55	D+	D+	B	D-	F
Fiji Water*	1.00	D	F	D-	D+	B+
Honest Tea*	0.61	D-	D+	D-	F	F
National Beverage	0.48	F	C-	F	F	F
Miller Brewing Company	0.44	F	D	F	F	F
Coors Brewing Company	0.43	F	F	D-	F	F
Monarch Beverage	0.42	F	F	D+	F	F
Dr. Pepper/Snapple	0.41	F	D	D-	F	D
Cott	0.30	F	D	F	F	F
Hansens	0.30	F	D	F	F	F
Starbucks	0.20	F	F	F	F	F
Crystal Geyser	0.08	F	F	F	F	F

* indicates responded to survey²
Best possible grade is 4.0. A description of the methodology is in Appendix A.

Key Findings

- In this second survey, Coca-Cola Company outranks its beverage industry peers overall. The firm is a leader in its commitments and performance on beverage container source reduction, company-wide recovery goals, and in investments in recycling programs. Coca-Cola is building a large recycling plant in South Carolina to grow availability of recycled PET plastic, appears to have the lightest 20-ounce PET carbonated soda bottle, and reports the highest percentage of recycled content in its aluminum cans. However, Coca-Cola lags PepsiCo on use of recycled content resin in PET beverage containers.
- Nestlé Waters North America showed the greatest improvement since publication of the 2006 Scorecard. Nestlé introduced its Eco-Shape® bottle, which uses the least packaging per unit of beverage for 0.5 litre containers (16.9 ounces) – the most popular size of water bottles consumed in the U.S. – and recently set an industry-wide goal of recycling 60% of PET bottles by 2018. Nestlé, along with Fiji Water, has also expressed public support for a legislative solution to significantly boost container recovery rates (a container redemption program similar to that of California). Nestlé has yet to use any recycled content in its PET bottles.

- PepsiCo reports the highest percentage use of recycled PET in its bottles, 10%. Unfortunately, PepsiCo has yet to commit to a company-specific or industry-wide beverage container recovery goal, or disclose a plan to significantly and sustainably raise beverage container recovery rates.
- Anheuser Busch has the most successful company-wide recycling program, processing five cans for every four it produces, yet it does not take the lead in recycled content. Anheuser Busch uses the standard industry ingots where both Coca-Cola and Red Bull report that they exceed the standard in their use of recycled aluminum.
- In addition to support for strong public policy on recycling, Fiji Water has the most clear and comprehensive webpages addressing container recycling. It has set admirable goals, but at the same time uses the most packaging per ounce of beverage among its major peers.
- Dr. Pepper/Snapple, maker of 7-up and *Canada Dry* and the third largest marketer of soft drinks in the U.S., does not have beverage container recycling goals or programs to significantly boost container recycling rates, and is the largest beverage firm not to respond to our survey. Given its size and prominence, Dr. Pepper/Snapple needs to directly engage stakeholders and consumers.
- Neither of the next largest beverage companies Cott nor National Beverage participated in the survey or publicly disclosed information on recovery and recycling or use of recycled content.

Recommendations

As You Sow's research finds that in order to minimize the use of natural resources, boost U.S. energy security, and positively address climate concerns, all beverage companies should:

- Commit to source reduction and improved recyclability of beverage containers
- Commit to using the highest possible levels of post consumer recycled content in beverage containers
- Commit to a set of measurable, sustainable, national and company-specific goals to recover at least 70% of beverage containers
- Support public policies that significantly increase the recycling of beverage containers
- Commit sufficient human and financial resources to be able to deliver on beverage container recycling commitments
- Publicly report on their beverage container recycling progress each year

This report is organized into five chapters: source reduction, recycled content, beverage container recycling, transparency, and recommendations. Each chapter addresses a key element of beverage packaging recycling.

We understand that the larger beverage companies have more resources available for sustainability, recycling, and climate change initiatives. Nevertheless, small companies such as Red Bull have made significant commitments to using recycled aluminum, and Fiji Water has made a notable endorsement of container deposit legislation that would significantly boost beverage container recycling. As You Sow encourages smaller beverage companies to continue to increase their commitments to source reduction, container recovery, use of recycled content, and industry-wide program goals and push existing industry standards.

Chapter 1: Source Reduction

Reducing the use of virgin packaging materials has a dramatic effect on energy use and the carbon footprint of beverage companies. Source reduction goals with strategic plans to implement them can have significant effects on the companies' double-bottom-line of financial and environmental returns.

U.S. Beverage Container Environmental Scorecard 2008: Source Reduction					
Source Reduction	GRADE	Has source reduction goals	Use of refillable glass or plastic bottles	Has reduced packaging	Packaging per ounce of beverage
Anheuser Busch	C+	C+	D	B+	C
Pepsi Co	C	D	F	B	C
Coca-Cola	C	C+	D	B	C-
Nestle Waters, NA	C	B-	B-	C	C-
National Beverage	C-	F	F	C	C
Red Bull	D+	C+	F	C	D+
Honest Tea	D+	F	F	D-	C
Miller Brewing Company	D	F	F	C	D
Hansen's	D	F	F	F	C
Cott	D	F	F	F	C
Dr. Pepper/Snapple	F	F	F	F	D
Fiji Waters	F	B-	F	F	F
Starbucks	F	F	C-	F	F
Coors Brewing Company	F	F	F	F	F
Monarch Beverage	F	F	F	F	F
Crystal Geyser	F	F	F	F	F

Among the four categories evaluated in the report, beverage companies received the highest scores in Source Reduction. This is a testament to individual companies' long-term commitments to light-weighting packaging in order to reduce both costs and, in recent years, environmental footprints.

Each of the seven companies that completed the Beverage Container Recycling Survey reported the weights of its containers.

- PepsiCo reported the lightest 12-ounce can
- Nestlé Waters reports the lightest 0.5-litre plastic PET bottle
- Coca-Cola reported the lightest 20-ounce carbonated soda plastic PET bottle
- Fiji Water has the heaviest water bottle
- Anheuser Busch has a long history of light-weighting (reducing the weight of) its cans – by 40% since the 1970s, but still reports a slightly heavier 12-ounce can than PepsiCo.

We conducted an informal weighing of PET beverage containers that did not, in all cases, match up with reported weights. The results are in Appendix B.

As You Sow found that for:

Carbonated Soda

- Coca-Cola provides the most carbonated soft drink per gram of packaging for a 20 oz PET bottle
- Dr. Pepper offers the least amount of beverage per gram of packaging for its 20 oz PET bottle

Water

- Nestlé Waters provides the most water per gram of packaging for a 0.5 litre PET bottle
- Coca-Cola provides the most water per gram of packaging for a 20 oz PET bottle
- Starbucks' Ethos and Fiji Water provide the least amount of water per gram of packaging

Although Fiji Water had the highest specifically stated source reduction goal of 20% by 2010, due to the heavy weight of its bottles, even with this reduction Fiji will still have the heaviest water bottle per ounce of beverage in the industry – almost three times that of Nestlé Waters' Eco-Shape® bottle.

Chapter 2: Recycled Content

The energy savings from using recycled materials in beverage containers is significant. Making cans of recycled aluminum instead of virgin ore requires 95% less energy, while using recycled PET for plastic bottles uses 30% less energy and saves 11 barrels of oil per ton of plastic.³ Recycled glass products use 35% less energy to manufacture than does making glass from raw materials.⁴

U.S. Beverage Container Environmental Scorecard 2008: Recycled Content

Use of Recycled Content	GRADE	Has goals on use of recycled content	Use of recycled content in beverage containers
Red Bull	B	B	B
Coca-Cola	C+	C+	C+
Pepsi Co	C+	D	B-
Monarch Beverage	D+	F	C
Anheuser Busch	D+	F	C-
Coors Brewing Company	D-	F	D+
Honest Tea	D-	D-	D-
Fiji Water	D-	C+	F
Dr. Pepper/ Snapple	D-	F	D
Nestle Waters, NA	F	D	F
Miller Brewing Company	F	F	F
Cott	F	F	F
National Beverage	F	F	F
Starbucks	F	F	F
Crystal Geyser	F	F	F
Hansen's	F	F	F

In 2004, both PepsiCo and Coca-Cola Company committed to using 10% recycled PET (rPET) in their bottles by the end of 2005. PepsiCo reports it has upheld that commitment. Coca-Cola reported that it has dropped back to using 3% rPET. We encourage all beverage companies to meet and exceed PepsiCo's industry-leading level of rPET.

Coca-Cola reports that it uses 65% recycled aluminum in its cans and Red Bull states it currently uses 55% recycled content in its cans and has committed to using 65% by the end of 2008. 65% recycled aluminum is nearly 50% higher than the industry average of 41.3%.

Anheuser Busch, the largest user of aluminum cans, uses 41.3% recycled aluminum in its cans. This is the industry average – all ingots purchased by all aluminum can manufacturers contain approximately this amount. We strongly encourage Anheuser Busch, as an industry leader, to push the average recycled content for the industry even higher.

Many smaller brands' containers are produced externally – often by larger companies that have a financial interest in the smaller company. As such, the smaller companies have less control over the amount of recycled content in their packaging. As You Sow encourages the larger companies and bottlers to offer commercial customers the same rates for recycled material that they use for their own brands.

In order to establish industry leadership, a beverage company would only need to use 15% recycled content in its PET beverage containers, or 70% recycled content in its aluminum beverage containers.

Most beverage companies still have not reported goals for, nor use of, recycled content materials in beverage containers. Higher levels of recycled content in beverages are technologically feasible and have an enormous impact upstream by minimizing energy use and natural resource depletion.

Chapter 3:

Beverage Container Recovery and Recycling

The national recycling rate in the U.S. has dropped since 1992 from 55% to 33%, but the average rate of recycling for states with mandatory deposits – bottle bills – is 70%.⁵ Supporting and investing in legislative policies that increase beverage container recovery and recycling or developing nation- and/or company-wide initiatives will dramatically reduce the environmental impact of beverage containers.

U.S. Beverage Container Environmental Scorecard 2008: Recovery and Recycling

Recovery and Recycling	GRADE	Support for industry-wide container recovery goals	Support for company-wide container recovery goals	Direct involvement in voluntary schemes to increase beverage container recycling	Support for public policy to increase recovery and recycling rates	Investments in container recycling programs
Nestle Waters, NA	C+	B-	C+	C-	A-	D+
Coca-Cola	C-	F	B+	C	F	A-
Anheuser Busch	C-	F	B-	C-	F	B
Fiji Water	D+	D	D	F	B	D-
Pepsi Co	D-	F	F	C-	F	C
Red Bull	D-	F	F	C-	F	D
Coors Brewing Company	F	F	F	D-	F	D
Miller Brewing Company	F	F	F	F	F	D
Honest Tea	F	F	F	D-	F	F
Monarch Beverage	F	F	F	F	F	F
Cott	F	F	F	F	F	F
National Beverage	F	F	F	F	F	F
Starbucks	F	F	F	F	F	F
Dr. Pepper/ Snapple	F	F	F	F	F	F
Crystal Geyser	F	F	F	F	F	F
Hansen's	F	F	F	F	F	F

As You Sow's 2006 Beverage Container Recycling Scorecard motivated Nestlé Waters North America to take a leadership position in publicly supporting container deposit legislation that will raise recycling rates nationwide. Fiji Water also supports strong public policy (container redemption) but has not taken as visible of a role in ongoing policy debates. At this time, no other beverage companies have expressed support for nationwide policies or container deposit legislation. This lack of support and, in many cases, continued lobbying against states trying to pass container deposit legislation has had significant negative impacts on the recycling rate in the U.S.

Company-wide, Anheuser Busch recovers the equivalent of five cans for every four it produces. Coca-Cola has invested heavily in recycling. The company has committed to reuse or recycle 100% of every PET or aluminum container it sells in the U.S. market, with a goal to recover 50% of PET by 2015. Coca-Cola's recycling business includes recycling facilities that convert recovered bottles into rPET.

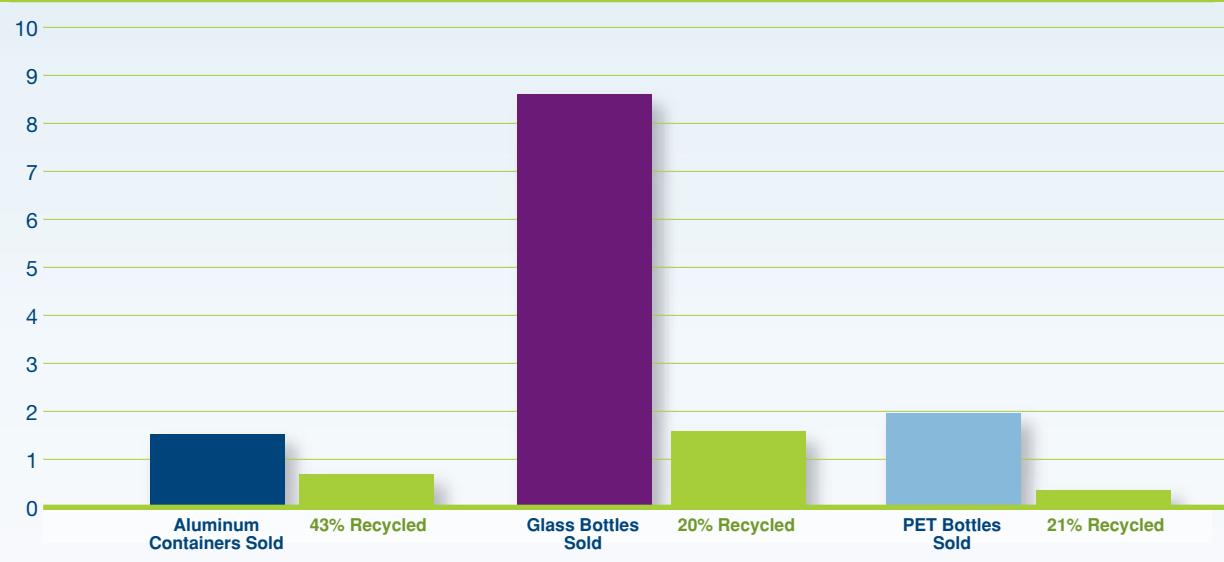
In October 2008, Nestlé Waters North America became the first U.S. beverage company to announce a commitment to an industry-wide container recovery goal – saying it will work with partners to reach a 60% PET bottle recovery rate by 2018. As You Sow applauds Nestlé Waters for publicly committing to more than double the current PET recycling rate when no other beverage company has been willing to do so. However, the company will need to find ways to encourage other major beverage makers to participate in order for the goal to be realized. We challenge all of Nestlé Waters' competitors to match this important commitment. We also advocate that the 10-year time frame to get to 60% be reduced by several years.

Recycling Rates

Current U.S. beverage container recycling rates have not kept up with beverage production. Only 43% (0.65 out of 1.5 million tons) of aluminum containers sold were recycled. The rates are even lower for glass and plastic. Approximately 1.7 million tons of glass (20%) was recycled out of 8.6 million tons sold, and 0.42 million tons of plastics (21%) were recovered out of the 2 million tons sold.⁶ The rest was incinerated, went to landfills, or was littered – and some of this litter finds its way to the ocean, where photo-degraded plastic bottles harm bird and marine life (see Appendix C).⁷

Increased recycling has a significant impact on both the environment and on national security. The 36,279,070 barrels of oil that would be saved by 100% recycling of beverage containers is the number of barrels the U.S. imports from Iraq every 52 days, from Saudi Arabia every 22 days, Venezuela every 31 days, and Russia every 180 days.⁸

Millions of Tons of Containers Sold vs Recycled



Greenhouse Gas Emissions and Energy Savings

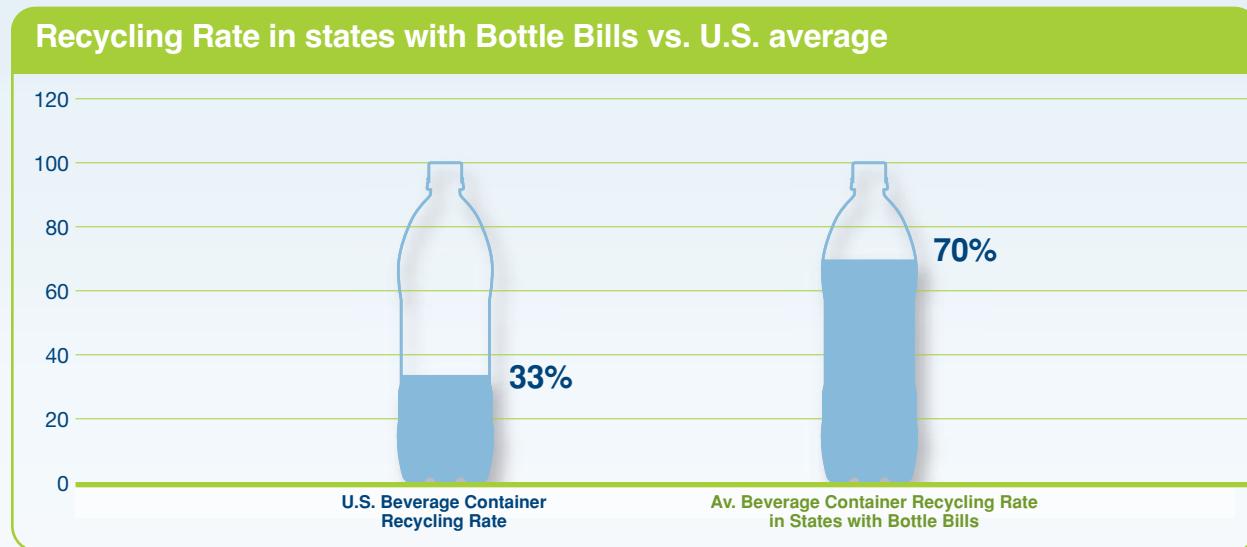
Source reduction and recycling have significant positive impacts on greenhouse gas emissions. In 2005, 2.8 million tons of aluminum, glass, and PET beverage containers were recycled. Using calculations based on the U.S. Environmental Protection Agency's WAste Reduction Model (WARM), this recycling activity prevented generation of 9.7 million tons of greenhouse gases.

Had 100% of the beverage containers that were sold been recycled, generation of an additional 15.6 million metric tons of greenhouse gases would have been avoided for a total savings of 25.2 million metric tons. 15.6 million metric tons of greenhouse gases is equal to the emissions from 2,857,143 passenger vehicles, or 36,279,070 barrels of oil.

Nationwide Recycling Programs

In recent years, opportunities for recycling in the United States have declined. In 2006 there was a 2.5% reduction in curbside recycling programs. Half of the country still lacks basic curbside pickup of recyclables. Without a reversal of this trend, municipally funded curbside recycling is not an adequate solution to address our container waste.

The recycling rate for states with container deposit systems ("bottle bills") is approximately 70%, more than twice the national average.⁹ Legislation for container deposit, "bottle bill," type redemption systems continues to face significant beverage industry opposition.¹⁰ This trend has continued even in the face of evidence that recycling and the use of recycled content provide significant reductions in energy use, natural resource extraction, and greenhouse gas emissions while also diminishing methane emissions from landfills.¹¹ Those beverage companies that continue their historical opposition to this proven solution to increase recycling rates and reduce emissions have yet to offer a credible alternative that can divert millions of tons of waste from landfills and incinerators each year.



As You Sow has challenged beverage companies that oppose container deposit legislation to identify alternative programs that can match the container recovery rates of "bottle bill" states. The American Beverage Association has shown little leadership on this issue. The Beverage Packaging Environment Council (BPEC) took a detour last year from developing a national recycling goal and said it first wanted to focus on ways to increase overall solid waste recovery by adding other high value containers for collection. While collection of additional materials is laudable, it has been reviewed extensively in previous industry discussions and does not move BPEC towards its stated goals.

Since our initial report, two major beverage companies – Nestlé Waters and Fiji Water – have publicly supported some form of container deposit legislation. Kim Jeffery, CEO of Nestlé Waters North America, has announced that he would back a second generation of state legislation that could significantly boost national container recovery rates featuring important differences from traditional bottle bills. Jeffery is calling for development of a new model legislative solution along the lines of California's beverage container law. The California law addresses the concerns of the grocery chains that opposed their stores being used as redemption centers by allowing redemption in recycling centers. Jeffery has stated that he also likes the fact that unredeemed deposits in California go to a central fund that finances additional curbside recycling programs instead of to beverage distributors as occurs in other states with container deposit legislation.

Beverage companies that continue to oppose container deposit legislation have a responsibility to step up and propose effective, scalable, sustainable alternative systems that can achieve the same high levels of recovery such as the 71% achieved in California in 2007. Responses to our survey and published materials indicate that, to date, the beverage companies included in this report have no such comprehensive alternatives that could attain a significantly higher national redemption rate.

Alternatives: In the absence of an industry-wide container recovery and recycling program, some companies are taking action on their own. Coca-Cola has invested in its own PET recycling plant in Spartanburg, South Carolina that is slated to open in January 2009. The company expects it to be at full capacity – producing 100 million pounds of food-grade PET, the equivalent of 20 billion 20-ounce bottles – in 2009.

Additional industry-backed beverage container recovery projects are under way in specified cities. The National Recycling Partnership's Model Cities Program aims to increase curbside recycling rates and was slated to have several cities participating in programs to increase curbside recycling by 2008. To date, the program has suffered several delays and only the first city, Hartford, Connecticut, has begun. The partnership has not indicated how successful outcomes from this program will be rolled-out on a scale broad enough to increase national recycling rates to be competitive with container deposit programs.

One new hybrid curbside solution that is increasing recycling rates and receiving much support from Coca Cola is RecycleBank. RecycleBank is a privately funded startup that has developed an incentive-based recycling program. As with container deposits, participating households receive a financial reward for recycling – in this case, coupons to use at participating retailers. The amount of the coupons is determined by the weight of recyclable items each participant places in the curbside bin. RecycleBank is making significant improvements in recycling rates in places such as Wilmington Delaware, where rates have risen from 3% to 32% with the RecycleBank program.¹²

Chapter 4: Transparency

As You Sow has added a transparency metric to the current report. We believe it is important to encourage companies to compile information on goals and commitments made on container recycling, source reduction and recycled content activities in a central, easily accessible place on their websites.

U.S. Beverage Container Environmental Scorecard 2008: Transparency				
Transparency	GRADE	Company has an environmental section on its website or an annual report that contains some information on recycling and is easy to find	Environmental section contains information on commitments or future goals regarding recycling efforts	Environmental section contains data and other details about recycling efforts
Fiji Water	B+	A-	A-	B+
Coca-Cola	D+	C	D	C-
Anheuser Busch	D	C+	F	C-
Dr. Pepper/ Snapple	D	D+	F	C
Nestle Waters, NA	D-	B-	F	D-
Hansen's	F	C-	F	F
Pepsi Co	F	D	F	F
Honest Tea	F	D-	F	F
Red Bull	F	F	F	F
Starbucks	F	F	F	F
Crystal Geyser	F	F	F	F
Miller Brewing Company	F	F	F	F
Coors Brewing Company	F	F	F	F
Monarch Beverage	F	F	F	F
Cott	F	F	F	F
National Beverage	F	F	F	F

Among beverage companies, Fiji Water's website, www.fjjigreen.com, has the highest level of transparency regarding its carbon footprint, recycling and source reduction goals, and steps the company is taking to achieve these goals. Fiji's environmental website is featured on its corporate homepage and is easy to navigate. Unique among its peers, Fiji presents the environmental impacts of beverage containers and its efforts to address them.

Most companies are failing to offer meaningful levels of disclosure on their websites. In addition, they often bury their environmental reports, have minimal information regarding environmental and recycling commitments, or only provide superficial, green-washing data. Many offer only limited space in their annual reports and/or do not have a stand-alone CSR report with a full section dedicated to beverage container recycling.

Chapter 5: Recommendations

In order to further reduce the significant environmental impacts of beverage containers, As You Sow recommends that beverage companies:

1) Commit to using higher levels of post consumer recycled content in all of their beverage containers

- We encourage beverage companies to increase the level of recycled materials in order to reduce emissions
 - For example, Red Bull currently uses 30% higher recycled content aluminum than the U.S. industry average and has commitments for 50% more recycled content than the industry average
 - Coca-Cola uses 30 – 40% post-consumer glass in its bottles. Anheuser Busch uses 25.3%, the industry average

2) Commit to source reduction

- Source reduction has the most direct impact both on a company's bottom line and on its environmental footprint
 - Companies should compete to deliver the most ounces of beverage per gram of packaging. Our chart in Appendix B provides an informal ranking by brand of leaders in maximizing product delivery and minimizing packaging

3) Commit to measurable national and company-specific recovery goals for beverage containers with specific implementation plans.

- Beverage companies need to work together to set and implement national recovery goals in addition to setting and meeting company-wide objectives. It is laudable to encourage other industries to recycle their food or beverage containers but this should not deter the beverage industry from leading the way.
 - Nestlé Waters' recent commitment to an industry-wide goal of 60% is the only such statement, however it lacks a strong implementation plan and industry buy-in
 - PepsiCo, Dr. Pepper/Snapple, Cott, National Beverage, Miller, Coors, and Red Bull do not have competitive recovery goals either company- or industry- wide

4) Support of public policies and voluntary actions that measurably increase recycling rates to 70 - 80% or higher

- Recycling rates of above 70% have been reported in states with container deposits (Michigan, Oregon, Hawaii, California)
- Future regulation of carbon emissions provides additional impetus for companies to work towards increasing recycling rates
 - Only Nestlé Waters and Fiji Water have supported container deposit legislation, the only current method with recycling rates of over 70%

5) Improve Recyclability

- By using 100% recyclable materials – including labels, caps, and inks – the recovered materials have higher market value due to lack of contamination
- Most companies responding to our survey do not use contaminants in their packaging
 - Fiji Water labels contain dyes and we encourage the company to switch to 100% recyclable materials when it lightweights its bottles in the upcoming year

6) Report on progress annually and provide clear information on websites

- Transparency is key for both concerned consumers and investors to best evaluate environmental commitments
- Accessible information is crucial. Publicly setting out company goals, actions taken to achieve them, and challenges faced in meeting targets will improve knowledge for all stakeholders
 - We recommend that beverage companies follow Fiji Water's lead in clearly presenting its challenges and targets in key areas relating to climate change and beverage containers

7) Fully disclose achievements and challenges in recycling

- Participate in the Third Beverage Container Recycling Survey
- Participate in industry-wide coalitions to increase beverage container recovery and recycling rates
- Discuss actions towards measuring carbon footprints and complete the annual survey of the Carbon Disclosure Project
 - Carbon disclosure enables companies to best measure, manage, and reduce their emissions and impact on climate change
 - We encourage Dr. Pepper/Snapple, Cott, National Beverage, and other laggards to report using the Greenhouse Gas Protocol¹⁴

Appendix A: Grading Methodology

For our 2008 report, As You Sow evaluated beverage companies on thirteen indicators in four core areas: source reduction, recycled content, container recycling, and transparency. The weights are noted in the table below. Companies were scored based on survey responses (where applicable) as well as publicly available information and personal communications. Adirondack, Arizona, Boston Beer, DS Waters, Jones Soda, New Belgium Beer, and Polar Beverage each received a GPA of zero and are not included in the charts.

Beverage Container Source Reduction		30%
1. Has source reduction goals		10%
2. Use of refillable glass or plastic bottles		10%
3. Has reduced packaging.....		30%
4. Packaging/ounce of beverage.....		50%
Beverage Container Recycled Content		30%
5. Has goals on use of recycled content		30%
6. Use of recycled content in beverage containers.....		70%
Beverage Container Recovery and Recycling		35%
7a. Support for industry-wide container recovery and recovery goals		15%
7b. Support for company-wide container recovery and recovery goals		15%
8. Direct involvement in voluntary schemes to increase beverage container recycling		10%
9. Support for public policy that will increase recovery and recycling rates		30%
10. Investments in container recycling programs		30%
Overview & Transparency		5%
11. Company has an environmental section on website or an annual report that contains some information on recycling and is easy to find.....		20%
12. Environmental section contains specific information on commitments or future goals regarding recycling efforts		40%
13. Environmental section contains data on current recovery and recycling programs and plans to increase numbers		40%

Appendix B: Evaluation of Packaging Weights

We conducted an informal weighing of each of the following PET bottles to examine real-life comparables. Container, caps, and labels were included in our sampling.

The results below are sorted first by beverage type (carbonated soda or water), and then by packaging intensity. Thus, for 20-ounce PET containers, Coca-Cola appears to use the least amount of packaging per ounce of carbonated soft drink. Among major water brands, Fiji Water appears to use the most amount of packaging per ounce of water.

Gram of Packaging Per Ounce of Beverage						
Beverage Type	Company	Product	Packaging	Serving size (ounces)	Packaging weight	Grams of packaging / Ounce of beverage
Carbonated Soda, PET	National Beverage	Shasta Black Cherry	PET	33.8 oz	41.4	1.23
	Coca Cola	Coca Cola	PET	20 oz	27.1	1.36
	Pepsi Co	Pepsi	PET	20 oz	27.2	1.36
	Cott	RC Cola	PET	20 oz	27.6	1.38
	Dr. Pepper Snapple	Canada Dry Ginger Ale	PET	20 oz	27.6	1.38
	Dr. Pepper Snapple	7-up	PET	20 oz	27.7	1.39
	Dr. Pepper Snapple	Dr. Pepper	PET	20 oz	28	1.40
Water	Crystal Geyser	Crystal Geyser	PET	33.8 oz	26.2	0.78
	Nestle Waters, NA	Arrowhead	PET	16.9 oz	14.7	0.87
	Crystal Geyser	CrystalGeyser	PET	16.9 oz	16.3	0.96
	Coca Cola	Dasani	PET	20 oz	22.7	1.14
	Nestle Waters, NA	Arrowhead	PET	20 oz	24.4	1.22
	Pepsi Co	Aquafina	PET	20 oz	24.4	1.22
	Fiji Water	Fiji Water	PET	33.8 oz	47.8	1.41
	Starbucks	Ethos Water	PET	23.6 oz	34.9	1.47
	Fiji Water	Fiji Water	PET	16.9 oz	29.7	1.76

Appendix C: The Great Pacific Garbage Patch

The “Great Pacific Garbage Patch” located in the middle of the Pacific Ocean between California and Hawaii is already twice the size of the state of Texas and weighs an estimated 3.5 million tons. Research indicates that 80% of the Garbage Patch is from land-based sources and more than 90% is plastics, which, using the Ocean Conservancy’s report that 15.9% of shoreline debris is beverage containers, suggests that 378,000 tons of debris are plastic beverage containers. The Garbage Patch is comprised mostly of photodegraded plastics, broken down into a fine plastic dust – and this is particularly dangerous for birds and marine life that ingest the plastic in their efforts to procure food from the ocean. The animals die because the plastics fill their stomachs – the plastics don’t pass through their digestive tracks and the animals literally starve to death.¹⁵



Photo: Cynthia Vanderlip for Algalita Marine Research

Appendix D: Changes in the Beverage Industry

Changes in beverage industry include the rapid growth of energy drinks and non-carbonated beverages. In 2006, sales of energy drinks increased 47%, while bottled water – which grew exponentially during the 1990s – began to slow.¹⁶ In recent years, sales of carbonated sodas declined by 1%.¹⁷

Energy Drinks: From 2002 to 2006, the energy drink market has grown at a combined annual growth rate of 45%, reaching \$5.4 billion in 2006 and is expected to continue growing by 33.7%.¹⁸ Energy drinks now comprise almost 5% of the non-alcoholic beverage market in North America.¹⁹ The top four brands are: Red Bull (43%), Monster (16%), Rockstar (12%) and Full Throttle (7%).²⁰

Bottled Water: Bottled water sales have almost doubled since 2000, growing 86% between 2000 and 2007.²¹ 2007 showed the smallest growth, 6.1%, since 1990. This may be attributed to the growing trend to return to drinking tap water. The *Los Angeles Times* attributes this shift to both the economy and concern with the “oil in making and transporting the bottles, the waste they create, and the notion of paying for what is essentially free.”²²

Endnotes

1 <http://www.beverage-digest.com/editorial/datastats.html> <http://bmi2.ztzinc.net/docs/majorshipments.html> Credeur, Mary Jane and Thomas Mulier. "Nestlé Loses Sales and Alice Waters Bans Bottled Water." *Bloomberg*. 22 January 2008. <http://www.bloomberg.com/apps/news?pid=20601109&refer=news&sid=aHgE5mVQHAvM>

2 This report evaluates the recycling activities of Miller Brewing Company and Coors Brewing Company independently. In June 2008, SABMiller and Molson Coors Brewing Company combined their U.S. and Puerto Rico operations to create MillerCoors.

3 Taylor, Brian. "An Energized Outlook: a global energy squeeze may continue to make secondary commodities valuable ones." *Recycling Today*. 1 August 2006. http://findarticles.com/p/articles/mi_m0KWH/is_/ai_n16702145 Truini, Joe. "Bottle bill proponent, opponent present case." *Waste News* 26 May 2008 <http://wastenews.texterity.com/wastenews/20080526/?fm=2>

4 "Recycling Energy Savings." <http://www.greenlivingtips.com/articles/182/1/Recycling-energy-savings.html> Truini, Joe. 26 May 2008.

5 Please refer to Bakshi, Nishita "Waste and Opportunity: U.S. Beverage Container Recycling Scorecard and Report" 2006 for a summary of the history of the beverage industry and beverage container recycling in North America. http://www.asyou sow.org/publications/2006_BevScorecard.pdf Recycling rates from: Container Recycling Institute, <http://container-recycling.org/images/allrates/recrate-90-06.gif>

6 Container Recycling Institute, Beverage Market Data Analysis

7 Although the number of landfills in the U.S. has decreased since 2000, from 1,967 to 1,754 in 2006, the size of the remaining landfills are increasing, and more and more waste is being sent offshore. Landfills without controls on methane and other emissions are not effective in reducing greenhouse gases and the 31.4 million tons of waste that is combusted emit more carbon dioxide per megawatt hour than coal-fired and other fossil-fuel-fired power plants. Platt, Brenda, David Ciplet, Kate M. Bailey, and Eric Lombardi. "Stop Trashing the Climate." June 2008. pp. 37 & 18. http://www.stoptrashingtheclimate.org/fullreport_stoptrashingtheclimate.pdf

8 Energy Information Administration. U.S. Imports by Country of Origin. Crude Oil. http://tonto.eia.doe.gov/dnav/pet/pet_move_impcus_a2_nus_epc0_im0_mbblpd_m.htm

9 Container Recycling Institute, private conversation

10 EPA 2006 p. 8. Recycling also saves 3 to 5 times the energy that a waste incineration power plant would generate combusting the same volume of materials. Platt, Brenda, David Ciplet, Kate M. Bailey, and Eric Lombardi. 2008. p. 31

11 Platt, Brenda, David Ciplet, Kate M. Bailey, and Eric Lombardi. 2008. p. 21

12 Naughton, Keith and Daniel McGinn. "Saving the World for a Latte." *Newsweek*. 6 October 2008. <http://www.newsweek.com/id/161230/output/print>

13 The Carbon Disclosure Project provides climate change data from the world's largest companies. <http://www.cdproject.net/index.asp>

14 The Greenhouse Gas Protocol is an international accounting tool used to understand, quantify, and manage greenhouse gas emissions. <http://www.ghgprotocol.org/>

15 http://www.thecoca-colacompany.com/citizenship/pdf/2007-2008_sustainability_review.pdf
<http://www.sfgate.com/cgi-bin/article.cgi?f=c/a/2007/10/19/SS6JS8RH0.DTL>
<http://www.latimes.com/news/local/oceans/la-me-ocean2aug02,0,3130914.story>
<http://www.algalita.org/pelagic-plastic-voyages.html>

16 <http://www.beveragedaily.com/news/ng.asp?id=81964>

17 <http://www.packagedfacts.com/Energy-Drinks-1486833/>

18 <http://www.packagedfacts.com/Energy-Drinks-1486833/>,
<http://www.beveragedaily.com/news/ng.asp?n=78128-global-industry-analysts-energy-drinks-formulation>

19 http://ats-sea.agr.gc.ca/us/4387_e.htm

20 <http://www.bakeryandsnacks.com/news/ng.asp?n=81899&m=1BASD07&c=%5Bemailcode%5D>

21 Beverage Marketing Corporation, 2008

22 <http://www.latimes.com/business/la-fi-water18-2008jun18,0,3613551.story?page=1>